

PRACTICE EXERCISES



Use technology where appropriate.

Algebra 2
Unit #6
WS #8

Simplify.

$$1. \frac{\frac{1}{x}}{\frac{2}{x}}$$

$$2. \frac{\frac{4}{y}}{\frac{3}{y}}$$

$$3. \frac{\frac{3}{x}}{\frac{2}{y}}$$

$$4. \frac{\frac{3}{z}}{\frac{1}{y}}$$

$$5. \frac{4}{\frac{2 + \frac{x}{y}}{1}}$$

$$6. \frac{-3}{\frac{5}{x} + y}$$

$$7. \frac{\frac{2}{x} + \frac{3}{y}}{\frac{-5}{x} + \frac{7}{y}}$$

$$8. \frac{\frac{5}{x} - \frac{2}{y}}{\frac{-4}{x} - \frac{6}{y}}$$

$$9. \frac{1 + \frac{2}{x}}{2 + \frac{3}{2x}}$$

$$10. \frac{\frac{1}{xy} - \frac{1}{y^2}}{\frac{1}{x^2y} - \frac{1}{xy^2}}$$

$$11. \frac{\frac{2}{x+4} + 2}{1 + \frac{3}{x+4}}$$

$$12. \frac{\frac{3}{x-2} - 5}{2 - \frac{4}{x-2}}$$

$$13. \frac{\frac{5}{x^2} + 6}{-8 + \frac{1}{x}}$$

$$14. \frac{\frac{3}{x} - 5}{4 - \frac{9}{x^2}}$$

$$15. \frac{\frac{2x}{x^2-9}}{\frac{6}{x-3}}$$

$$16. \frac{\frac{2y}{y^2-16}}{\frac{3}{y+4}}$$

$$17. \frac{\frac{4}{2x-10}}{\frac{7x}{x^2-25}}$$

$$18. \frac{\frac{2}{3y-6}}{\frac{5y}{y^2-4}}$$

$$19. \frac{\frac{4y}{y^2-4} - \frac{5}{y-2}}{\frac{2}{y-2} + \frac{3}{y+2}}$$

$$20. \frac{\frac{2}{x+3} + \frac{5x}{x^2-9}}{\frac{4}{x+3} + \frac{2}{x-3}}$$

$$21. \frac{\frac{2x}{x^2+4x+3}}{\frac{1}{x+3} + \frac{2}{x+1}}$$

$$22. \frac{\frac{5y}{y^2-5y+6}}{\frac{3}{y-3} + \frac{2}{y-2}}$$

$$23. \frac{\frac{7y}{y^2+14y+49}}{\frac{3}{y+7} + \frac{2y}{(y+7)^2}}$$

$$24. \frac{\frac{4x}{x^2+6x+9}}{\frac{-5}{(x+3)^2} + \frac{7}{x+3}}$$

$$25. \frac{x-3 + \frac{5}{x+1}}{x+5 + \frac{2}{2x+2}}$$

$$26. \frac{2+y + \frac{2}{y-3}}{5-y - \frac{8}{4y-12}}$$

$$27. \frac{2x+4 + \frac{12}{x+5}}{3x-1 + \frac{10}{(x+5)^2}}$$

$$28. \frac{4y-3 + \frac{11}{y-4}}{2+2y - \frac{9}{(y-4)^2}}$$

$$29. \frac{\frac{-3}{x} + 4 + \frac{20}{x-2}}{-x - \frac{7}{x} + \frac{10}{(x-2)^2}}$$

$$30. \frac{7y - \frac{4}{y} + \frac{15}{y+1}}{\frac{-2}{y} + 4y - \frac{6}{(y+1)^2}}$$

$$31. \frac{\frac{2x}{x^2-25} + \frac{1}{3x-15}}{\frac{5}{x-5} + \frac{3}{4x-20}}$$

$$32. \frac{\frac{7y}{2y-2} + \frac{y}{y^2-1}}{\frac{-1}{3y+3} + \frac{4}{y+1}}$$

$$33. \frac{\frac{3+x}{2x^2-32} + \frac{5}{2x+8}}{\frac{-7}{x-4} + \frac{3}{x+4}}$$